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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,627	10/25/2000	Christopher J. Knotz	12216-006001	4383

29825 7590 01/13/2005

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EXAMINER	
HILLERY, NATHAN	

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/696,627	KNOTZ ET AL.	
	Examiner	Art Unit	
	Nathan Hillery	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☑ Other: data structure definition for Webopedia

DETAILED ACTION

1. This action is responsive to communications: Misc Letter filed on 12/28/04.

2. Claims 1 – 26 are pending in the case. Claims 1, 18, and 24 – 26 are independent.

3. The rejection of claims 1 – 26 under 35 U.S.C. 103(a) as being unpatentable has been maintained.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 2, 12 – 16, 18, 19, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gao (US006581094B1) and further in view of Anuff et al. and Ferrel et al. (both cited by Applicant).

2. **Regarding independent claim 1**, Gao teaches that *the present invention uses XML syntax to support new functionality. The XML syntax of the invention forms the previously described Unified Device Descriptor UDD. The invention is disclosed as an application of XML in which a Unified Device Descriptor (UDD) is used to specify digital devices. Each digital device has a unique UDD dedicated to it, which describes parameters, such as device characteristics, capabilities, features, status, geographic information, maintenance record, job billing information, support/administration information, and the like. Using Document Type Definition (DTD), the invention*

precisely defines the logical structure of a UDD, so that each manufacture or device administrator will fill the contents for its devices (Column 4, lines 45 – 58), which provide that **a content definition editor that receives a content definition; a data structure generator that produces a content data structure, the content data structure corresponding to the content definition; a content item editor that receives content item information and provides the content item information for storage in the content data structure**. Gao does not explicitly teach **a template editor or publisher...** . However, Anuff et al. do teach that *once a template has been created and has one or more styles associated with it, the styles can be retrieved for use in a page. Part of the API for the Template object includes methods for retrieving styles. Once retrieved, the API for the Style object allows the style to be executed, creating the desired portion of the user interface* (Column 15, lines 33 – 38), which provide for **a template editor that generates formatting information for the content item information and stores the formatting information separately from the content item information**. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Gao with that of Anuff et al. because such a combination would allow the users of Gao the benefit of *a portal server that provides services ... that give access to various databases, web servers, scripting environments and mail services* (Column 1, lines 62 – 67). Further, Ferrel et al. teach that *the publisher modifies one or more existing layout objects or adds one or more new layout objects... the publisher modifies or adds one or more content objects. At the completion of state 344, process 320 proceeds to state 332 wherein the project is*

released again. Releasing the updated project ensures that the proper set of layout and content objects are made available to the customer 160 (FIGS. 1 and 2) (Column 17, lines 18 – 28), which provides for **a publisher that generates a formatted output based on the content item information and the formatting information**. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the inventions of Gao and that of Anuff et al. with that of Ferrel et al. because such a combination would allow the users of Gso and Anuff et al. the benefit of a *method of styling content in an electronic publishing system* (Column 4, lines 1 – 2).

3. **Regarding dependent claim 2**, Gao teaches that *the invention is disclosed as an application of XML in which a Unified Device Descriptor (UDD) is used to specify digital devices. Each digital device has a unique UDD dedicated to it, which describes parameters, such as device characteristics, capabilities, features, status, geographic information, maintenance record, job billing information, support/administration information, and the like* (Column 4, lines 47 – 54), which provide that **the content definition comprises one or more data types and one or more parameters for each data type**.

4. **Regarding dependent claim 12**, Gao does not explicitly teach **a template editor**. However, Anuff et al. do teach that *both "templates" and "styles" can be created dynamically, as part of an administration user interface. This dynamic creation process involves the following general steps: define the template, by describing it to the administrative user interface; create the style's source code in a file, using whatever language and technique is appropriate to the deployment and to the types of templates*

to which the style will apply; define the style in association with a template; upload the style files to the portal web site (Column 15, lines 20 – 32), which provide that **the template editor comprises a file import module that receives the formatting information and transforms the formatting information into a form that is compatible with the system**. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Gao with that of Anuff et al. because such a combination would allow the users of Gao the benefit of *a portal server that provides services ... that give access to various databases, web servers, scripting environments and mail services* (Column 1, lines 62 – 67).

5. **Regarding dependent claims 13 and 14**, neither Gao nor Anuf et al. explicitly teach **scheduler.** Ferrel et al. teach that *sophisticated customers may use other more advanced MPS features, such as search, scheduling, and automatic delivery... Besides browsing via the Explorer or scheduling automatic home delivery, there are several additional ways customers can obtain MPS applications. For example, an individual application may be distributed via floppy disk or CD-ROM 124, it may be distributed through E-mail or bulletin boards, or the application may be directly accessible via a link in other applications (such as the Microsoft Network yellow pages system)* (Column 9, line 65 – Column 10, line 10), which provide that **a publication scheduler that controls when a particular content item is published by the publisher according to a set of predetermined publication criteria** (home delivery) and that **the publication criteria are generated automatically in response to parameters** (inherently a location is chosen) **that are accessed from outside the system**. It would

have been obvious to one of ordinary skill in the art at the time of the invention to combine the inventions of Gao and that of Anuff et al. with that of Ferrel et al. because such a combination would allow the users of Gso and Anuff et al. the benefit of a *method of styling content in an electronic publishing system* (Column 4, lines 1 – 2).

6. **Regarding dependent claim 15**, Gao teaches *that Extensible Markup Language (XML) establishes a system for defining new languages and formats. XML separates structure and content from presentation* (Column 4, lines 16 – 18) and that *the present invention uses XML syntax to support new functionality* (Column 4, lines 45 – 46), which provide that **the formatting information comprises extensible mark-up language (XML) fragments**.

7. **Regarding dependent claim 16**, Gao teaches that *multiple devices can be chained to perform complex tasks. For example, a second printer can be chained into a first printer UDD to be a backup, or to speed up printing of a big job, if they are the exact same kind of printers. This may be achieved through reliance upon the previously described link attribute 128. The link attribute 128 may also be used to chain an input device directly into an output device, if a common communication format is used. Thus, for example, a digital camera can be linked directly into a color printer. In this case, a user clicks the camera and its output is automatically printed at the designated printer* (Column 14, lines 33 – 43), which provides that **the content item information refers to one or more different content item, thereby producing one or more links between the content items**.

8. **Regarding independent claims 18 and 26**, the claims incorporate substantially similar subject matter as claims 1 and 2, and are rejected along the same rationale.

9. **Regarding dependent claim 19**, the claim incorporates substantially similar subject matter as claim 16, and is rejected along the same rationale.

10. Claims 3 – 11, 17, 20 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gao (US006581094B1), Anuff et al., and Ferrel et al. (both cited by Applicant) as applied to claims 1, 2, 12 – 16, 18, 19, and 26 above, and further in view of Plantz et al. (as cited by Applicant).

11. **Regarding dependent claims 3, 4, and 7**, Plantz et al. teach that *by selecting and highlighting the document 151, 152, 153 and selecting "View/Edit Document" 154, the GPS provides an publishing/editing control form 160 for the specific document. This form preferably comprises the following components: an indication of the current topic 161; an executable link to the current author's e-mail address 162; the name of the current or main author of the document 163; the name of the editor 164; an executable link to the assigned editor's e-mail address 165; a listing of the current document's subheadings or subsections for the author to select which document section is to be worked on 166; an option to "Edit a Section," 167 which, upon selection, executes the command and displays the selected document section to be edited; an option 168 to view the entire chapter in view-only mode; an option to "Spell Check" the selected section 169, selection of which opens the entire document for spell checking according to known algorithms; a selection 170 permitting the author to enter personal information*

such as their name, address, telephone number and similar data; 171 is a display of the date and time when the document was last modified; 172 displays the date on which the document was finally completed; 173, 174, 175, 176 are displays of the completion date of assigned aspects of the editing tasks associated with the document completion (for example, for a medically related document, these sections might include editorial signoffs by medical, pharmaceutical, grammatical and other experts, as well as signoff, for example, by an executive editor.; editorial titles, naturally, vary with the project); 177 provides a link to one or more particularly desirable databases or search engines (for example, for a medically related document, having a live link to a Medline Search engine at this point is preferred; see FIG. 8 for one embodiment of the layout of these GPS functions) (Column 9, lines 35 – 67), which provide that **the content definition editor provides a blank content definition form to a user and receives the content definition from the user, and the data structure generator automatically produces the content data structure based on the content definition entered by the user**, that **the content item editor provides a content item form to a user, the form corresponding to the content data structure and accepting content items that correspond to the content data structure**, and that **the content definition editor permits the content data structure to be changed after the content data structure has been created and after one or more content items have been stored in the content data structure**. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the combined invention of Gao, Anuff et al., and Ferrel et al. with that of Plantz et al. because such a combination would allow the users

of the combined invention the benefit of *a computer-based Group Publishing System (GPS) for enhancing collaboration between and among individuals who may be separated by distance and/or time* (Column 4, lines 64 – 67).

12. **Regarding dependent claims 6, 5, and 17, respectively**, Ferrel et al. teach that *returning to the creation of title layouts and content by the publisher, after creation, the title layouts 110, 116 and content 112, 114, 118 are released and stored in a publication storage 120* (Column 9, lines 53 – 56), which provides that **the content items are stored in the same database as the formatting information**. Ferrel et al. do not explicitly teach **separate databases** or **multiple databases**. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the invention of Ferrel et al. and provide that **the content item and the formatting information are stored in separate databases** and that **the content item information is stored in multiple databases and is consolidated by the publisher**, since Ferrel et al. illustrate in Fig 1 that the title layouts and content are 2 different entities therefore the skilled artisan would be motivated to store them differently to preserve space, memory, and organization on the databases.

13. **Regarding dependent claim 8, 9, and 11**, Gao, Anuff et al., nor Ferrel et al. explicitly teach **a naked browser or Internet Kiosk**. However it would have been obvious to one of ordinary skill in the art to use the combined invention to provide that **the content item editor is accessible through a naked web browser**, that **the content item editor is accessible through a public Internet kiosk**, or that **the content definition editor, the content item editor, and the template editor are each**

accessible through a naked web browser, since Anuff et al. do teach that *in essence, the computer system enables individual users of communication devices 10, including personal computers 10a, workstations 10b, web access devices 10c, and the like, to view informational content provided by various servers 12a-12n. The communication devices 10 are connected to the servers 12 by means of a suitable communications network 14, such as a local area network, a wide area network, the Internet, or the like. To view the content provided by the servers, the devices 10 run a browser application 16. At the servers 12, the available content and services are stored ... in a format that is capable of being read by the browser applications, such as HTML or XML* (Column 3, lines 2 – 17). Based on the teaching, the skilled artisan would interpret that the invention provides for the limited resources of a **naked browser** and an **Internet kiosk**.

14. **Regarding dependent claim 10**, Gao teaches that *the network interface circuit 32 is connected to a transmission channel 34, which may be any wire, wireless, or optical channel* (Column 2, lines 50 – 52), which provide that **the content item editor is accessible through a personal wireless device**.

15. **Regarding dependent claim 20**, the claim incorporates substantially similar subject matter as claim 8, and is rejected along the same rationale.

16. **Regarding dependent claim 21**, the claim incorporates substantially similar subject matter as claim 10, and is rejected along the same rationale.

17. **Regarding dependent claims 22 and 23**, the claims incorporate substantially similar subject matter as claim 6, and are rejected along the same rationale.

18. **Regarding dependent claims 24 and 25**, the claims incorporate substantially similar subject matter as claims 1 – 4, 11, and are rejected along the same rationale.

Response to Arguments

19. Applicant's arguments filed 10/21/04 have been fully considered but they are not persuasive.

20. In response to Applicant's argument that Gao does not teach a content definition editor (p 7 first paragraph), it should be noted that the rejection of claim 1 under 35 USC 103(a) explains that Gao teaches that ... *Each digital device has a unique UDD dedicated to it* ... The content definition in this instance would be the information regarding the digital device, which the skilled artisan is well aware is editable.

21. In response to Applicant's argument that Gao does not teach a data structure generator (p 7, second paragraph), it should be noted that Webopedia defines a data structure as **in programming, the term data structure refers to a scheme for organizing related pieces of information. The basic types of data structures include file**... (<http://www.pcwebopaedia.com/TERM/D/data_structure.html>). Further, the rejection of claim 1 under 35 USC 103(a) explains that Gao teaches that ... *Using Document Type Definition (DTD), the invention precisely defines the logical structure of a UDD* ...

22. In response to Applicant's argument that Gao does not teach a content item editor (p 7, third paragraph), it should be noted that ... *Each digital device has a unique UDD dedicated to it, which describes parameters, such as device characteristics, capabilities, features, status, geographic information, maintenance record, job billing*

information, support/administration information, and the like...each manufacture or device administrator will fill the contents for its devices... The content item information in this instance would be the parameters of the UDD, which the skilled artisan is well aware is editable.

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Hillery whose telephone number is (571) 272-4091. The examiner can normally be reached on M - F, 10:30 a.m. - 7:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NH

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER

data structure

Last modified: Friday, November 16, 2001

In programming, the term *data structure* refers to a scheme for organizing related pieces of information. The basic types of data structures include:

- files
- lists
- arrays
- records
- trees
- tables

Each of these basic structures has many variations and allows different operations to be performed on the data.